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Attorney's Docket No. NOR.US.9

PATENT

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In re Application of:	Richard S. Norek	]	
Serial No.:	10/707,060	]	Examinee: Avila
Confirmation No.:	1059	]	Group A & Unit: 3617
Filed:	11/18/2003	]	
For:	WAVELESS HULL	]	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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DECLARATION OF PRIOR INVENTION  
37 CFR § 1.131

I, Richard S. Norek, the Applicant in the above captioned patent application, declare that I conceived of this invention no later than January 3, 2003, as evidenced by photocopies of pages 12 and 13 of my laboratory notebook, attached. I further declare that I was diligent in reducing the invention to practice by making various scale models of the invention and testing them in water. The invention was constructively reduced to practice by filing U.S. Application No. 10/262,018 on 10/01/2002, of which the above-captioned application is a continuation-in-part.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

I respectfully submitted,

*Richard S Norek*

Date: September 7, 2004  
Tel. No.: 207/439-2821

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IDEA No. 2: WAVELESS HULL

The purpose of the invention is to eliminate the waves generated by boats while they move in or on the water.

A "WAVELESS HULL" must satisfy the following conditions:

1. The hull's cross-section must be constant along its entire length (for the outside wall).
2. All the water displaced by the hull while it is moving in the water, must be contained within the hull (the inside wall).
3. The flow channel within the hull shall be a converging-diverging diffuser.
4. To minimize the propulsion wake behind the boat, the propulsion should be accommodated inside the diffuser (with the exception of a sailboat).

There are two major advantages of the subject hull:

A) It recovers the energy that the hull puts into the displaced water while the hull is in forward motion.

Conventional hulls move the water aside and the work to do this task is not recovered. The subject hull does not move the water aside but accelerates it in the converging-diffuser in the axial direction along the hull. Subsequently, the energy is recovered (minus hydraulic losses) in

Richard S. Norch, 13 January 2000

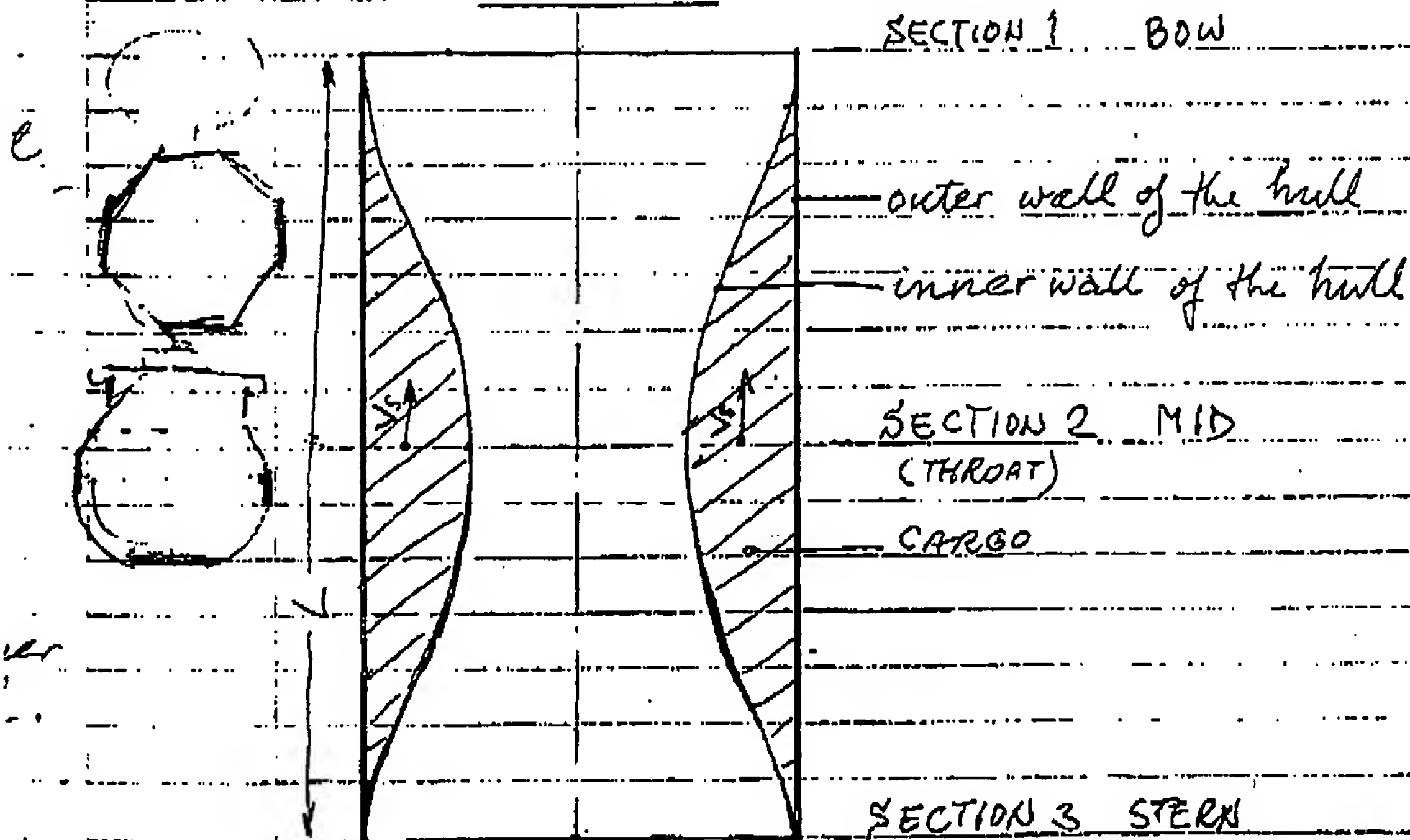
Read and understood by Jeffrey N. Marshall 30 April 2002

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the diverging part of the diffuser.

B) The subject hull does not generate any large waves that a conventional hull does. For instance, divergent bow-waves, divergent stern-waves and transverse waves behind the hull. The only waves expected to be generated by the hull motion are small waves due to the boundary layer outside the hull and the water velocity mismatch between the diffuser exit and the surrounding water due to the propulsion of the boat. The following sketch illustrates the idea:

FIGURE 1



Richard S. Kline, 3 January 2000

P. 1 and understood to be written by Marshall 30 April 2002

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